



May 30, 2019

Mr. Steve Spurlin
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, 11th Floor
Atlanta, GA 30303

**Subject: Nashville International Airport Gas Line
Nashville, Davidson County, Tennessee
Contract Number (No.) EP-S4-14-03
TDD No. TT-03-034**

Dear Mr. Spurlin:

The Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) submits this letter report summarizing emergency response activities conducted April 9 through 19, 2019, at the Nashville International Airport Gas Line release site in Nashville, Davidson County, Tennessee. This report includes three enclosures:

- Enclosure 1 contains figures, including a site location map.
- Enclosure 2 contains a summary table of air monitoring data.
- Enclosure 3 contains a copy of the Tetra Tech START logbook notes.

EMERGENCY RESPONSE ACTIVITIES

On April 9, 2019, the National Response Center (NRC) notified the U.S. Environmental Protection Agency Region 4 (EPA) that the Tennessee Department of Transportation struck and ruptured a 12-inch gasoline transmission pipeline at the Nashville International Airport releasing an unknown quantity of product (NRC report #1242283). The breach occurred at 36.137048 degrees north and -86.660321 degrees west (see Figure 1 in Enclosure 1).

The EPA and Tetra Tech START mobilized to the site and integrated into Unified Command. On-Scene Coordinator (OSC) Steve Spurlin reported to the Incident Command Center and OSC Jordan Garrard assisted with field operations. The initial report from Colonial Pipeline, the pipeline owner, indicated that approximately 750 barrels (35,000 gallons) of gasoline was released into a field surrounding a runway at the airport.

The EPA tasked Tetra Tech START to assess air quality due to the gasoline volatilizing from the ruptured line. The area surrounding the release included a long-term parking lot approximately 100 meters to the west of the ruptured line, undeveloped land to the north, McCrory Creek to the east, and an airport runway to the south (see Figure 2 in Enclosure 1). EPA tasked Tetra Tech START, on April 10, to set up air monitoring locations to assess the site and potential impacts to surrounding areas, focusing on the nearest receptor area. Tetra Tech START was also tasked to provide intermittent air monitoring support to the excavation personnel to help confirm the success of personnel protective measures.

The secondary concern was migration of the released product into the down gradient surface water body, McCrory Creek. Personnel were assigned to review the creek and areas between the creek and ruptured

line. Boom and absorbent pads were deployed at six downstream locations in McCrory creek, approximately 200 yards apart, and vacuum trucks and storage tanks were staged onsite.

On April 10, Tetra Tech START set up an AreaRae Pro air monitoring station between the site and the public parking lot to the west (see Figure 2 in Enclosure 1, Unit 9). The AreaRae Pro was configured with sensors for detection of oxygen, carbon monoxide, hydrogen sulfide, lower explosive limit (LEL), volatile organic compounds (VOCs), and gamma radiation. Tetra Tech START monitored the station from the site staging area via a computer using ProRae Guardian and VIPER telemetry. Due to VOC readings that ranged from 3 to 13 parts per million (ppm), three additional air monitoring stations were set up (see Figure 2 in Enclosure 1). All four stations sampled continuously until the evening of April 11.

Table 1 summarizes air monitoring data captured by VIPER. The data was divided into three 36-hour periods for the report. The VOC detections ranged from X to X ppm. There was one elevated, sustained detection over night from April 10 to April 11. This reading was

Colonial Pipeline, the responsible party (RP) and their contractors, first focused on excavation of the immediate area around the pipeline rupture. As more heavy equipment arrived onsite, the drainage ditch located along the access road, adjacent to the north of the rupture, was excavated to below original grade by several inches, where possible. All excavations were affected by the extremely variable size of the fill material in the hillside. Underflow dams were also installed at the end of the drainage ditch excavation and just prior to where drainage from the hillside was routed to enter McCrory Creek, southeast of the rupture. (see Figure 3 in Enclosure 1). Several exploratory trenches and holes were excavated to target the release pathway, no product was located in the trenches. No sheen or smell was discovered along the creek.

On April 11, OSC Garrard discovered a location where product had emerged from the bank and began to discharge into the creek. Tetra Tech START used a MultiRae Pro to continuously monitor for VOCs and an UltraRae to spot check benzene concentrations to assist the RP in their worker safety air monitoring during certain tasks. All times START was present and benzene was detected, the RP equipment responded with a similar detection. Benzene detections were seen as high as nine ppm but most detections were seen in the three to five ppm range. All detections were very short duration. When benzene was detected the RP would first remove personnel from the task near the benzene detections. If the detections returned, increased engineering controls were implemented.

To address the release to the creek, the RP placed additional boom and absorbent pads over the discharging product until the vacuum trucks were positioned. Hand augers were used to delineate the product's below ground pathway to the creek. An interception trench was constructed up gradient of the discovered seeps along the creek bank. Once completed, a vacuum truck was used to remove the collected product from the trench. (see Figure 3 in Enclosure 1).

On April 12, the perimeter air monitoring was discontinued, as the pipeline was no longer releasing product and the breach was temporarily repaired. The RP discovered a second seep of product into the creek, approximately eight feet north of the first observed seep and expanded the trench to better intercept the pathway to the second seep. Product was observed collecting in the excavated drainage ditch along the access road, the RP used a vacuum truck to remove product from the ditch. The RP began excavating the surface soil along affected area of the hillside, an area approximately 150 feet wide, 300 feet long, and 0-5 deep to remove affected soil. (see Figure 3 in Enclosure 1).

On April 13, the RP identified an additional seep located approximately 20 feet upstream of the first observed seep. The RP contractor placed soft boom around the seep and utilized a vacuum truck to

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remove the product. Additionally, the RP excavated exploratory holes along the northwestern and western portion of the hillside, nearer the airport to investigate other potential product pathways. Fill material composition prevented hand auger use. The RP continued excavating affected surface soil from the hillside and removing product collected in the trench, using vacuum trucks. The RP began backfill of the excavated surface soil area.

On April 14, a portion of the boom in the creek failed due to higher water levels and a faster flow rate from the overnight rain event. Most of the downstream boom was still in place, and no sheen was seen escaping. The RP continued excavating and backfilling the affected surface soil area on the hillside and removing product collected in the trench, using vacuum trucks.

From April 15 to 19, the RP continued to remove product from the trench and continued excavation and backfill on the affected hill near the rupture site. The hillside excavation encompassed a second area as shown on Figure 3 in Enclosure 1.

In total, an estimated 3,616 cubic yards of soil were stockpiled for removal, and 39,831 gallons of liquid were collected from the recovery trench; 837 gallons of the recovered liquid was estimated to be fuel.

EPA and Tetra Tech START demobilized on April 19, 2019.

If you have any questions or need additional copies of this report, please contact Leslie Shaver at (678) 775-3093 or [[HYPERLINK "mailto:leslie.shaver@tetrattech.com"](mailto:leslie.shaver@tetrattech.com)].

Sincerely,

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START IV Project Manager

Andrew F. Johnson
START IV Program Manager

Enclosures (3)

cc: Katrina Jones, EPA Project Officer
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Nashville International Airport Gas Line

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ENCLOSURE 1

FIGURES

(2 Pages)

ENCLOSURE 2

TABLES

(3 pages)

ENCLOSURE 3
LOGBOOK NOTES
(14 Pages)